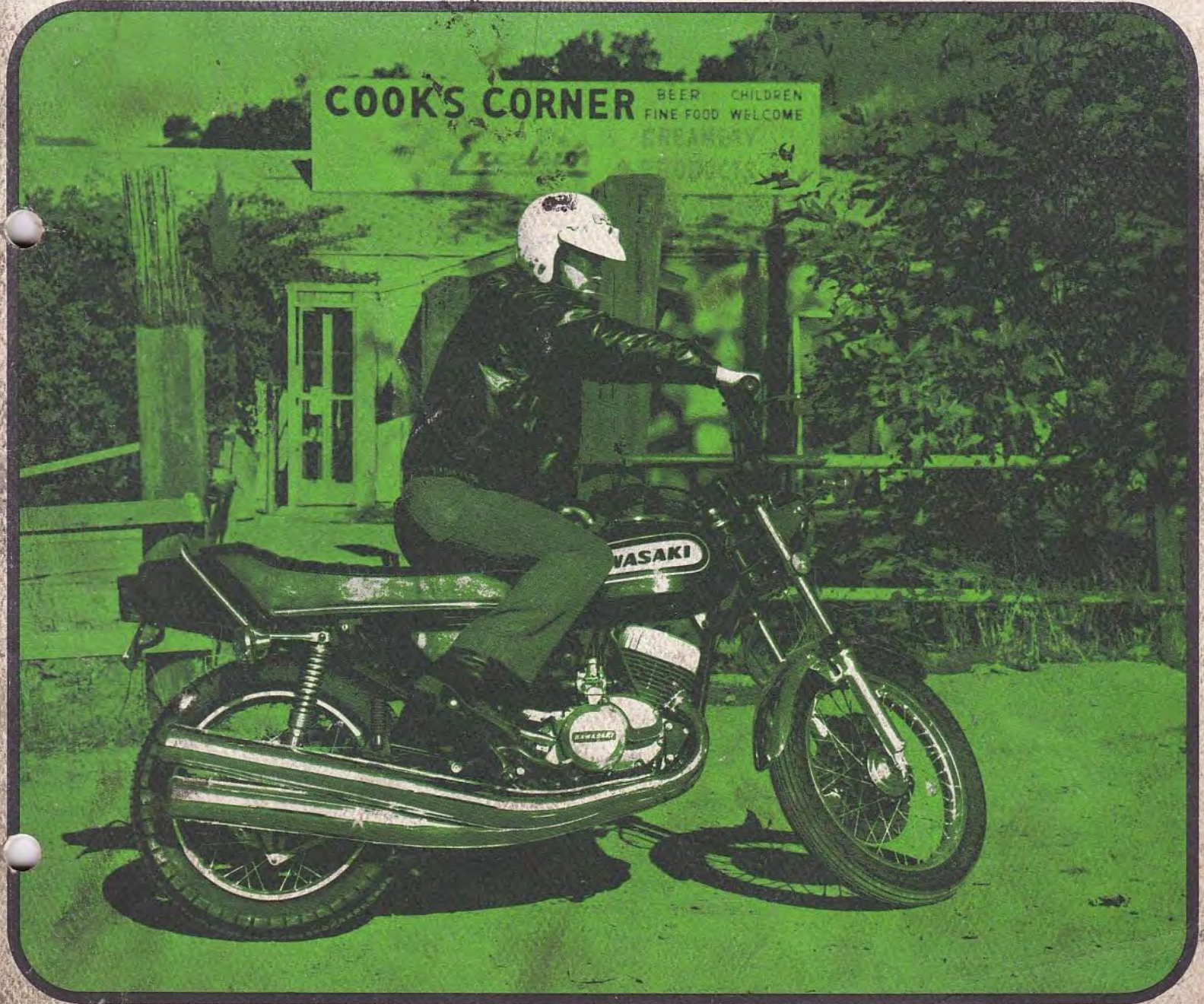


# KAWASAKI

# H2B

## ASSEMBLY & PREPARATION MANUAL



© Kawasaki Motors Corp. 1973

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic mechanical photocopying, recording or otherwise, without the prior written permission of Technical Services/Kawasaki Motors Corp.

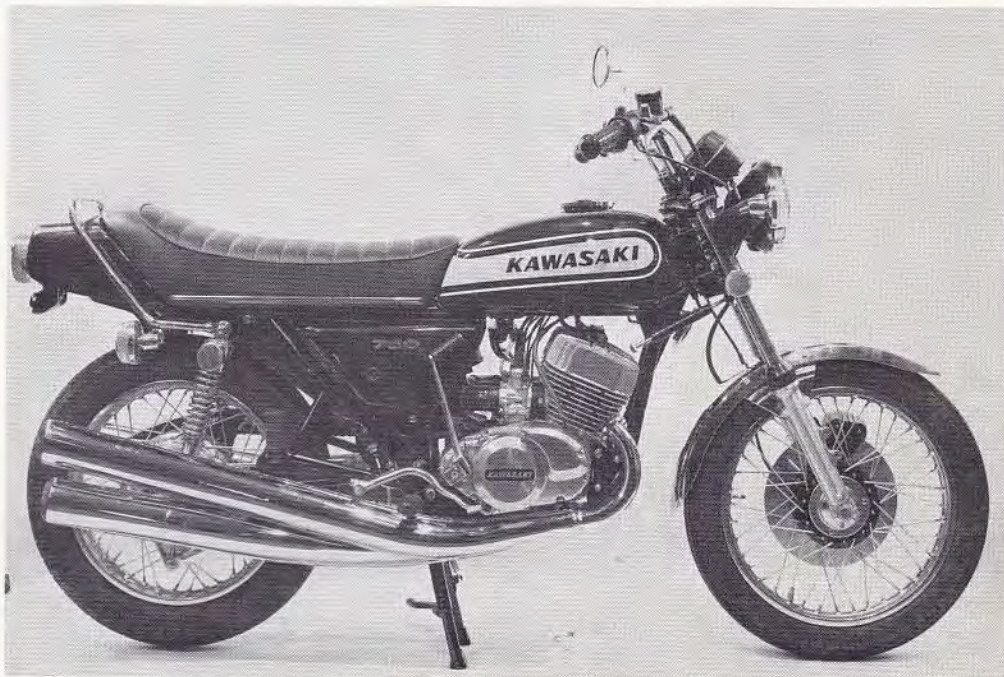
No liability can be accepted for any inaccuracies or omissions in this publication, although every possible care has been taken to make it as complete and accurate as possible. All procedures and specifications subject to change without prior notice.

# KAWASAKI H2-B

## ASSEMBLY AND PREPARATION MANUAL

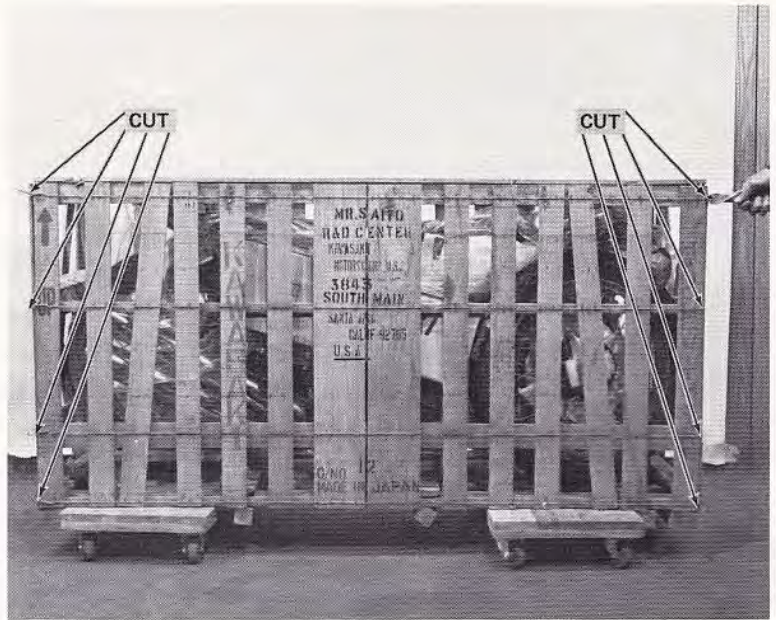
There are three major sections in this manual:

- SET-UP INSTRUCTIONS – Work performed during uncrating and assembly
- PRE-SALE SERVICING – Preparation and inspection performed before delivery
- SPECIFICATIONS – Handy specifications for possible troubleshooting

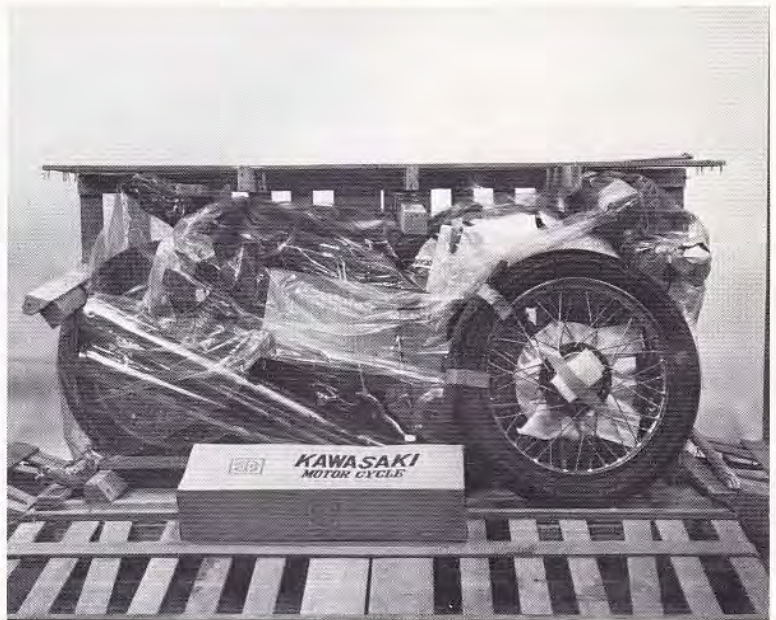


## UNCRATING AND ASSEMBLY

Clear an area 20' x 20'. Set the crate upright on its base and cut the binding straps or wires at the corner of the crate.

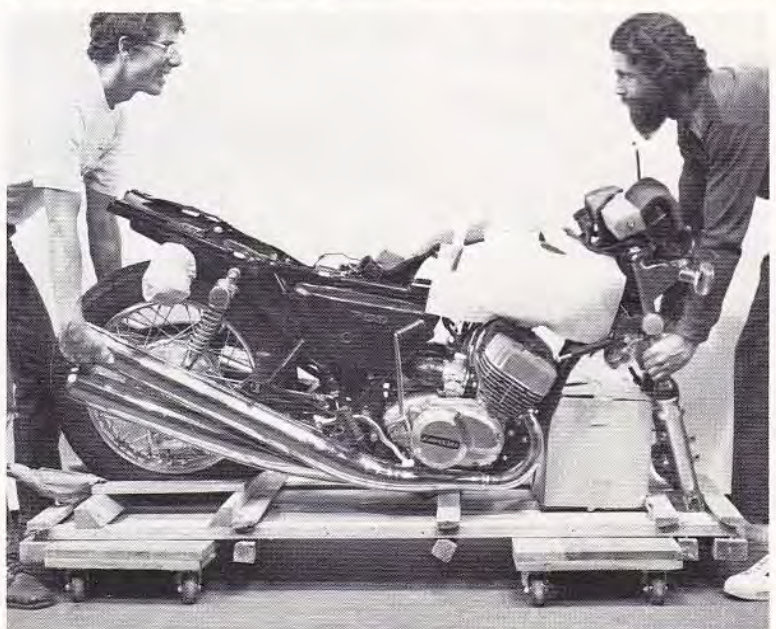


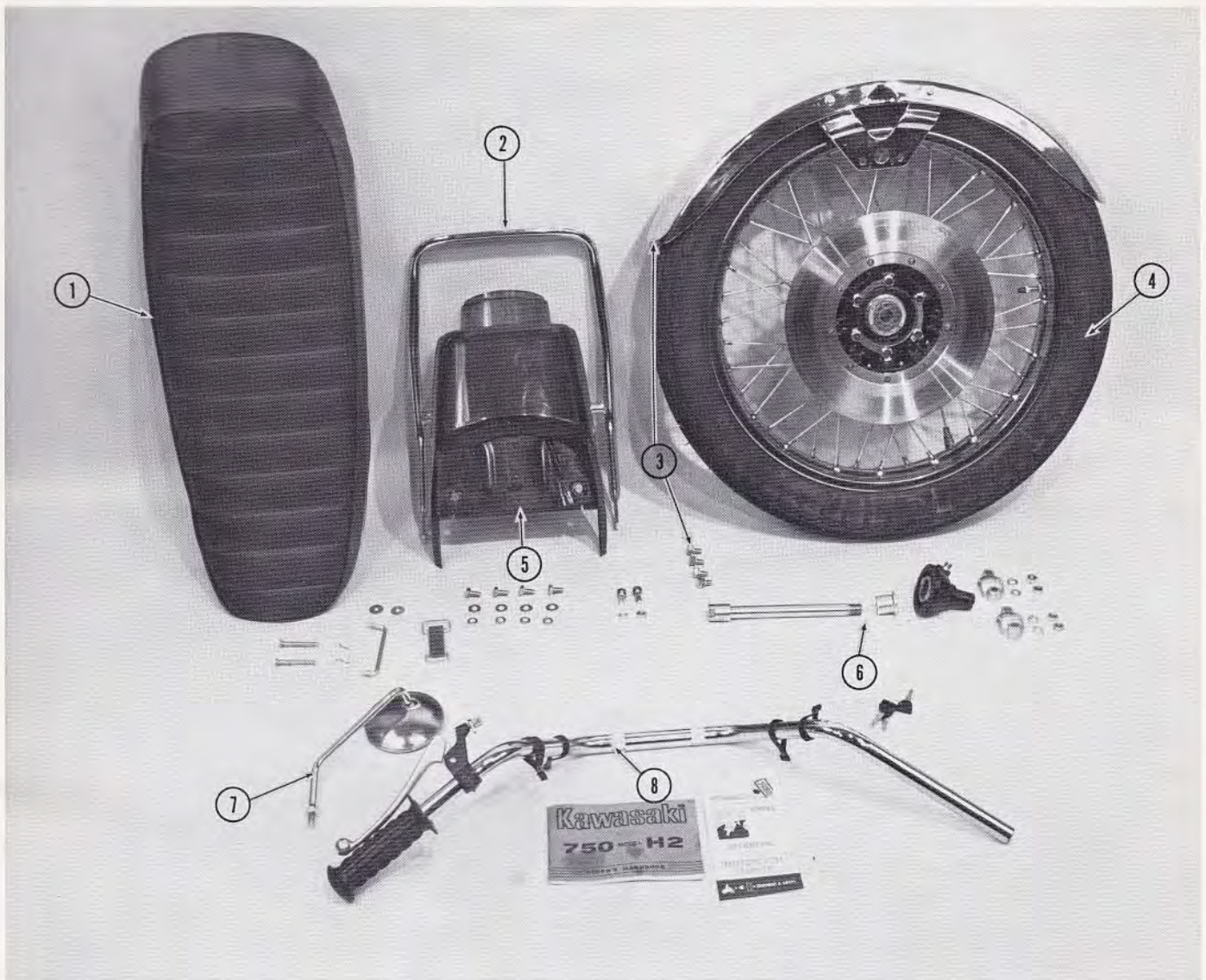
On the wooden crate, pry off the top of the crate and fold down the ends and one side; or lift the cardboard cover straight up off the foam crate. **CAUTION:** Peen over all nails to prevent injury or a tire puncture.



Remove the plastic cover and discard it with the crate pieces. **CAUTION:** Make sure that all parts are removed from the foam pieces before they are discarded.

Collect the parts cartons, handlebars, and front wheel and, with an assistant, move the motorcycle to the assembly area.





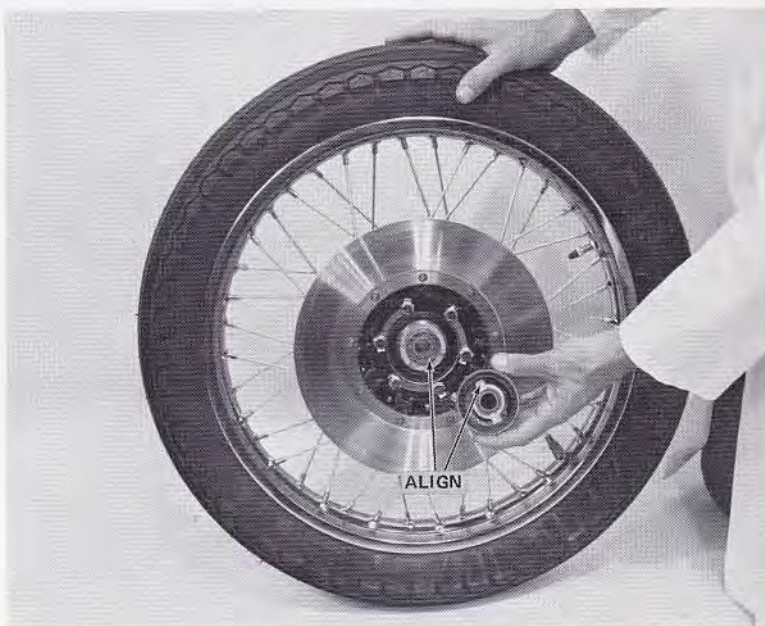
Open the parts cartons and check the contents against this photo:

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Seat with 2 clevis pins, safety clips, and seat latch.</li> <li>2. Passenger grab rail with 2 bolts, washers and lockwashers.</li> <li>3. Front fender with four mounting bolts and lockwashers.</li> <li>4. Front wheel assembly.</li> </ol> | <ol style="list-style-type: none"> <li>5. Rear fender with four bolts, washers, and lockwashers.</li> <li>6. Front axle, spacer, speedometer drive gearbox, and axle clamps.</li> <li>7. Rear view mirror.</li> <li>8. Handlebars, riders handbook, and mirror socket plug.</li> </ol> |
|---|--|

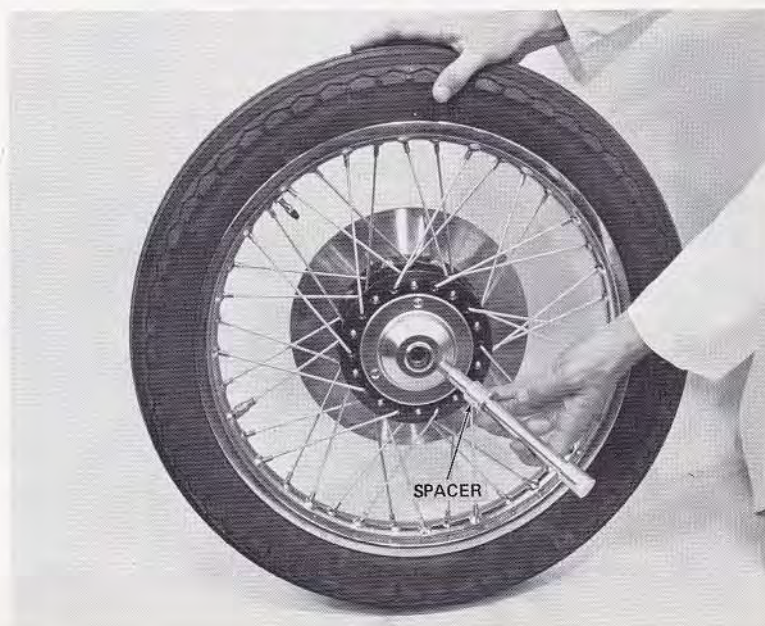
Turn the lower fork legs so the fender mounting lugs face inward. Mount the front fender with four 16mm long bolts and lockwashers. Be sure to mount the brake hose bracket between the fender brace and the left fork leg, as shown. **CAUTION:** Do not bend the hydraulic brake pipe during assembly, or it may cause the brake to squeal.



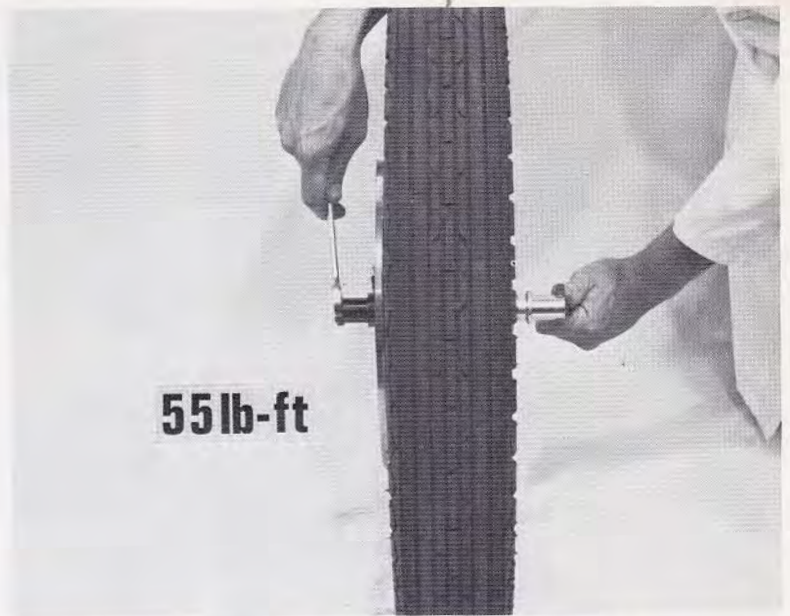
Check the inside of the speedometer drive gear assembly for loose parts, and fit it to the front wheel. Be sure to align the tangs in the drive assembly to the slots in the hub. **CAUTION:** Loose parts or misalignment can result in serious damage. **SAFETY NOTE:** Loose parts inside the hub could cause the front wheel to lock, resulting in loss of control.



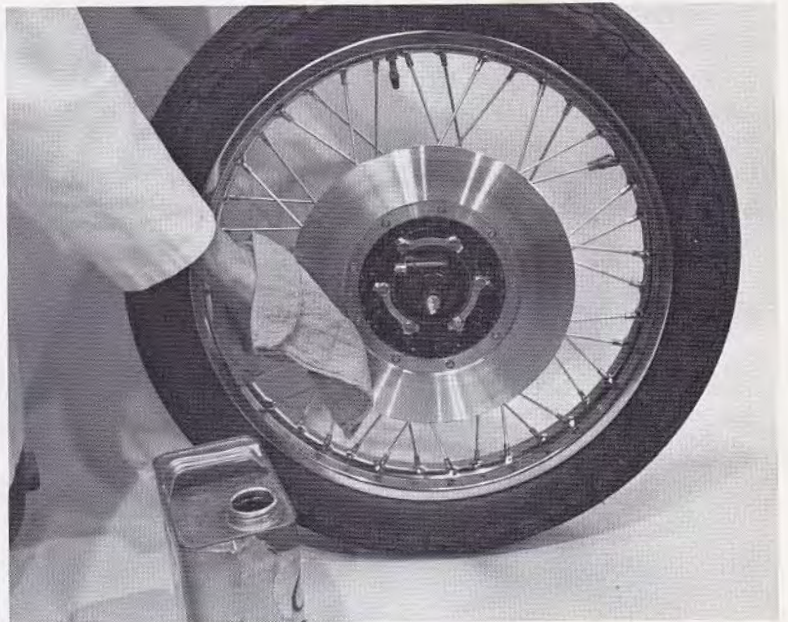
Insert the axle spacer into the hub grease seal, as shown, and thread in the axle.



Tighten the axle to 55 lb.-ft. of torque, then turn the speedometer drive gearbox to check for binding.



Wipe the disc clean with trichloroethylene or other oilless solvent.



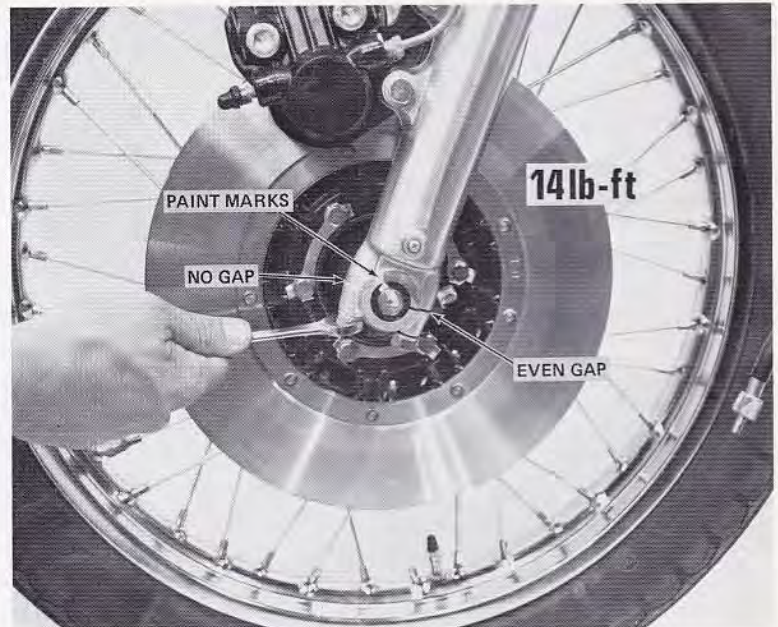
Pull the plastic guards off the axle clamp studs and check that the threads have not been damaged. Turn the lower fork sliders so the caliper lugs face forward.



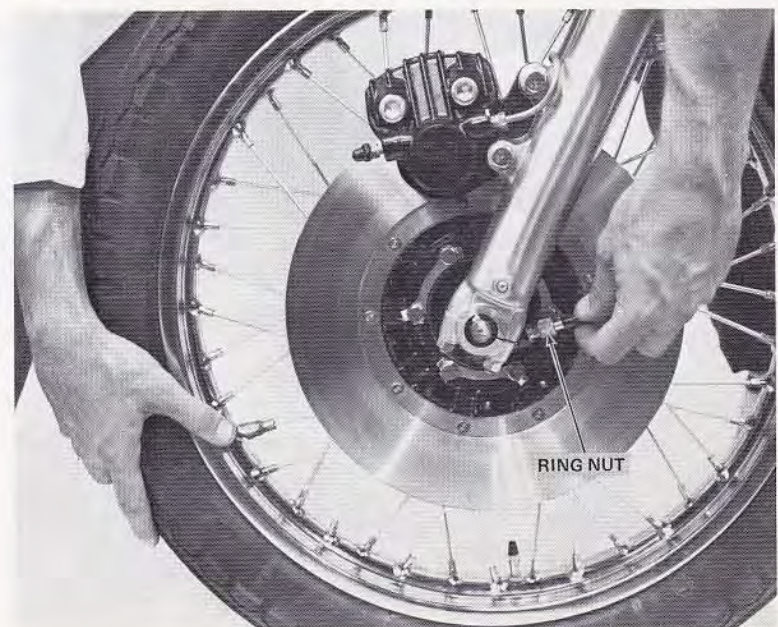
Slip the cardboard spacer from between the brake pads and fit the front wheel to the unit. The disc should slide between the pads of the brake caliper, and the axle should rest between the axle clamp studs.



Mount the axle clamp caps, as shown, so there is no gap in front, and an even gap at the rear. Align the yellow point marks on the fork and axle to correctly position the speedometer drive gearbox. Then tighten the front nut of the left axle clamp, then the rear nut to 14 lb.-ft. of torque. Depress the forks several times to center the axle, and then tighten the right axle clamp nuts, front then rear, to 14 lb.-ft. of torque.



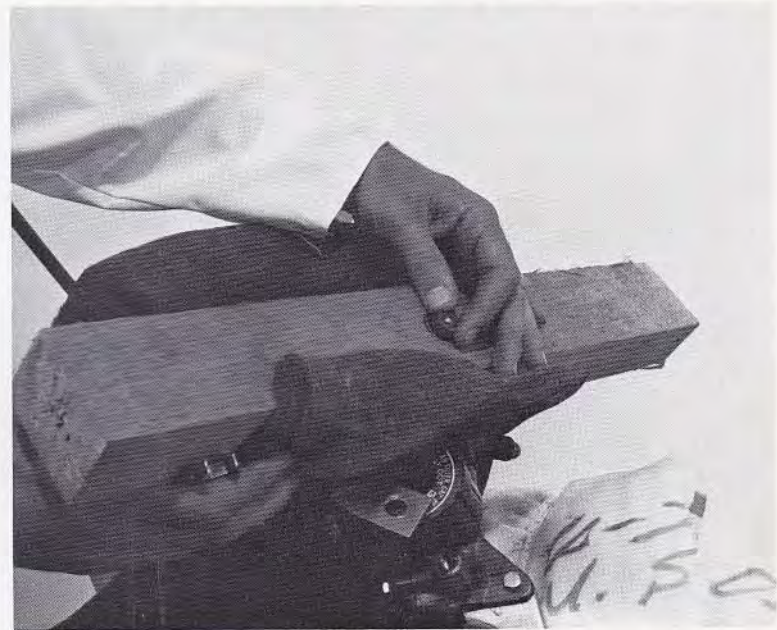
Insert the speedometer cable into the socket on the gearbox while slowly turning the front wheel. Tighten the ring nut securely.



Remove the bolt holding the master cylinder assembly to the fork crown and set the master cylinder out of the way.



Remove the nut holding the wooden crossbrace and discard the brace. Then remove the handlebar clamp bolts.

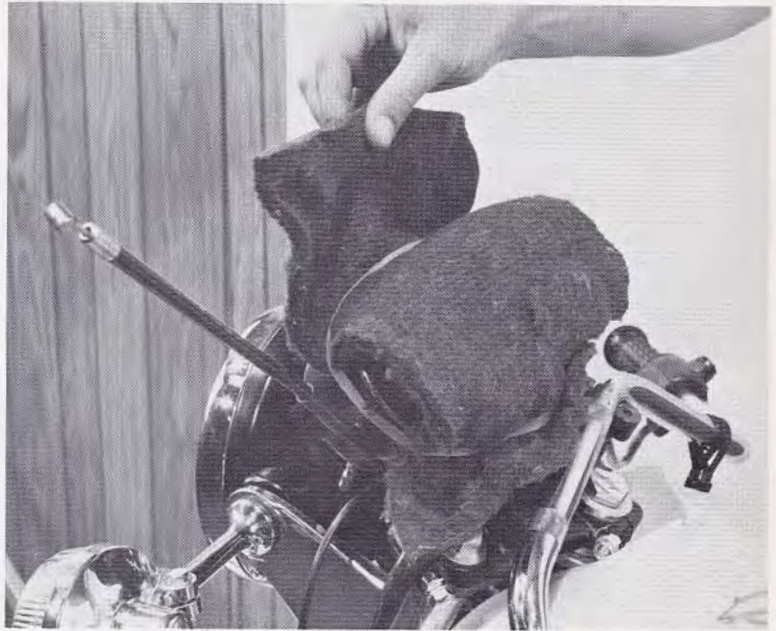


Slip the throttle grip assembly over the right end of the handlebars before mounting the bars. Be careful that the stop-switch wire is not damaged by the end of the handlebars.

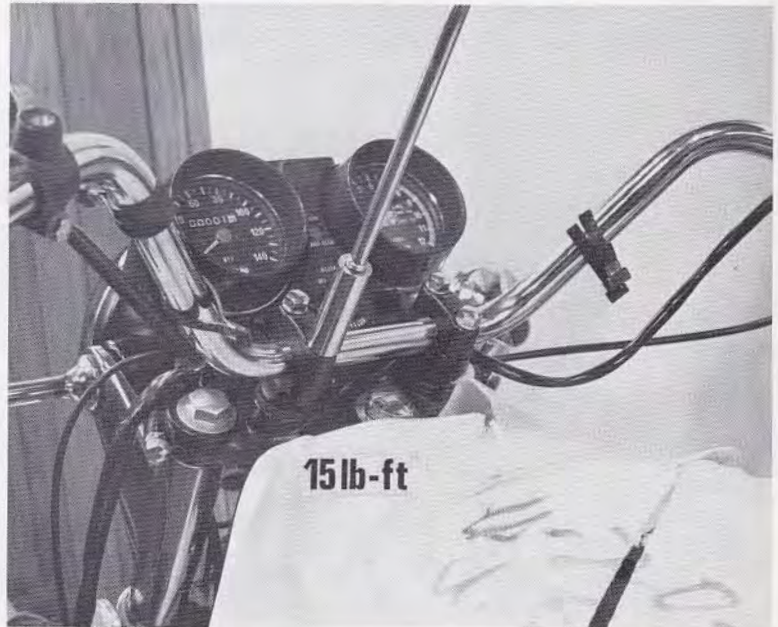




Remove the protective packing from the instrument cluster.



Mount the handlebars and tighten the clamp bolts to 15 lb.-ft. of torque.



Tighten the two clamp screws on the twistgrip assembly. **NOTE:** make sure the rubber grip does not rub on the end of the bar.



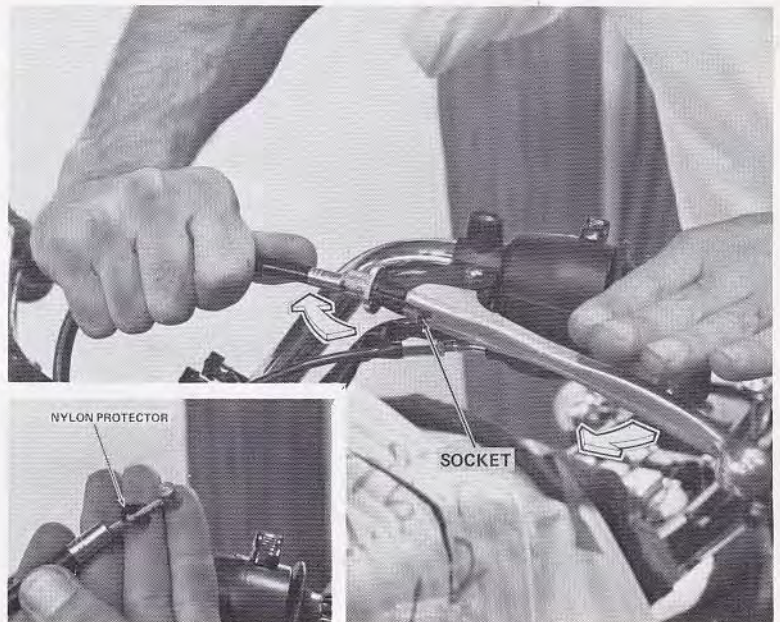
Mount the front brake master cylinder next to the twistgrip. The small nipple on the side of the clamp spaces the master cylinder the proper distance from the grip assembly. Tighten the bolts to 4.5 lb.-ft. of torque.



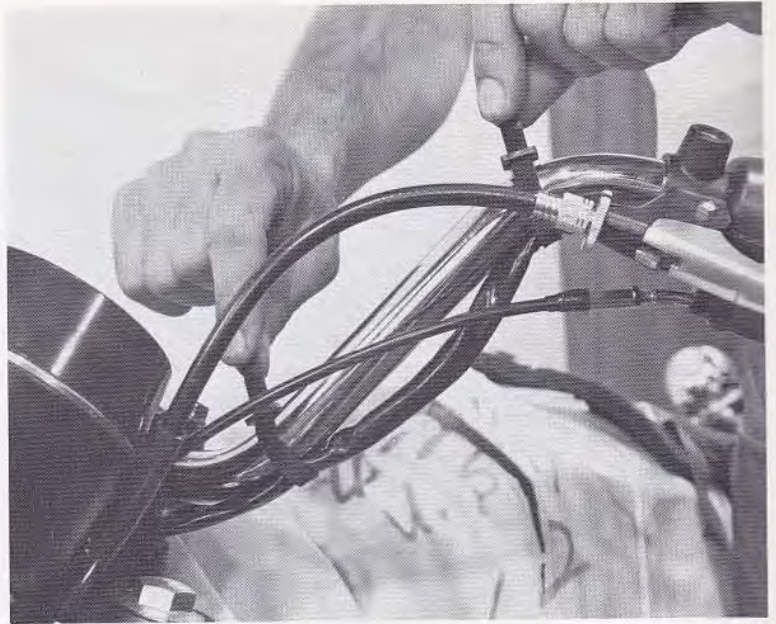
Mount the left-hand switch case between the grip and the clutch lever so that the cold start lever and the headlight beam control are easily reached. Tighten the screws securely.



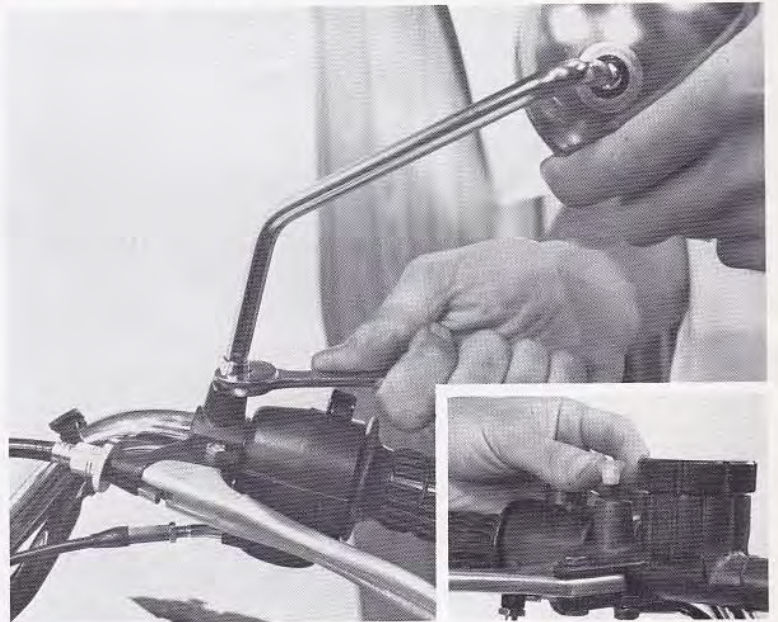
Turn the clutch lever thumbwheel and adjuster as far into the lever bracket as possible and then back them out until the slots align. Push the nylon-protected cable nipple into the socket on the lever, pull on the cable sheath, and swing the cable into the adjuster.



Fit the wiring straps around the wiring harness on both sides of the handlebars.



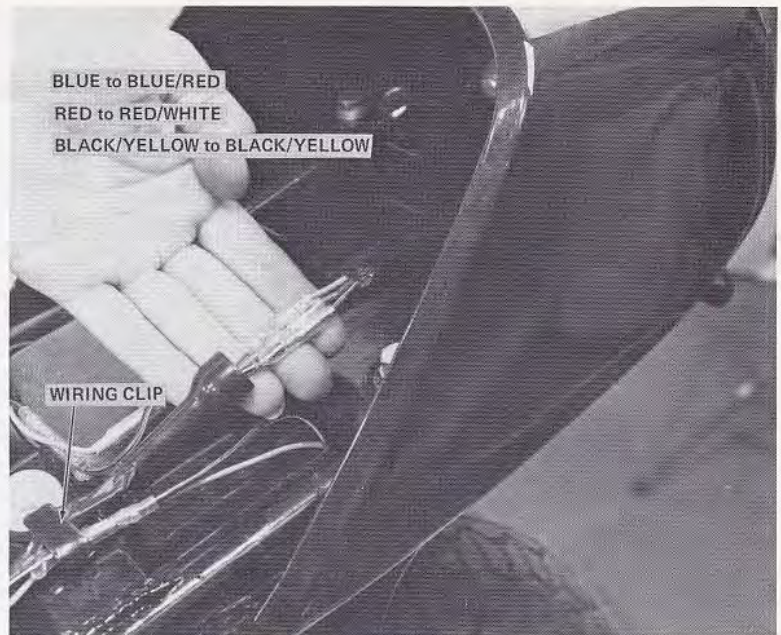
Mount the rear view mirror by threading it in all the way, backing it out to the proper position, and tightening the locknut securely. Also put the mirror mount plug in the socket on the brake lever bracket.



Mount the seat backrest with the four mounting bolts, lockwashers, and flatwashers.



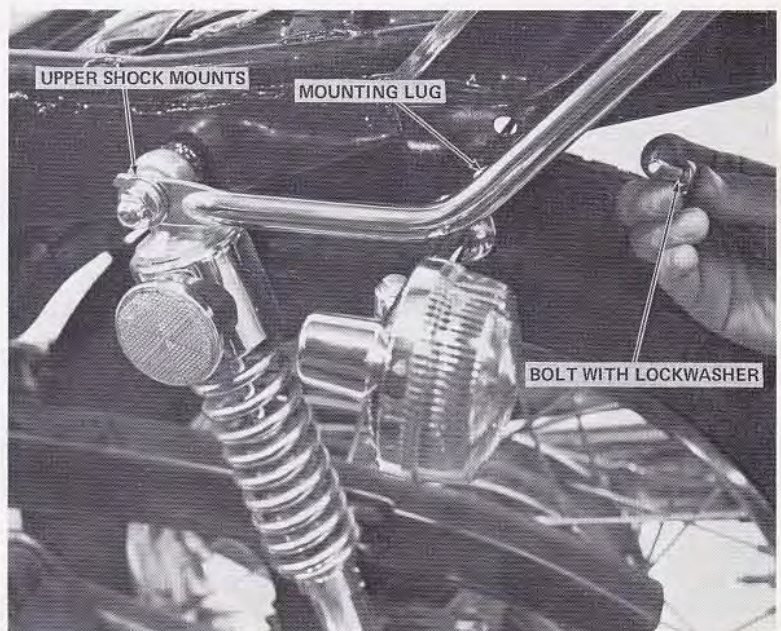
Make the wiring connections as shown, and then slip all the wires from the rear turn signals and taillight under the clip on the fender. Bend the clip down to hold the wires in place.



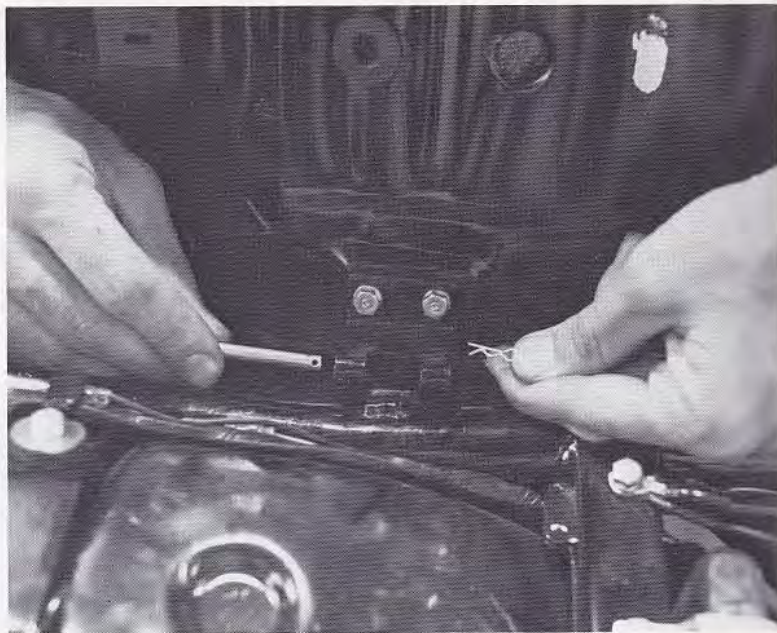
Secure the tool kit in its holder with the rubber strap.



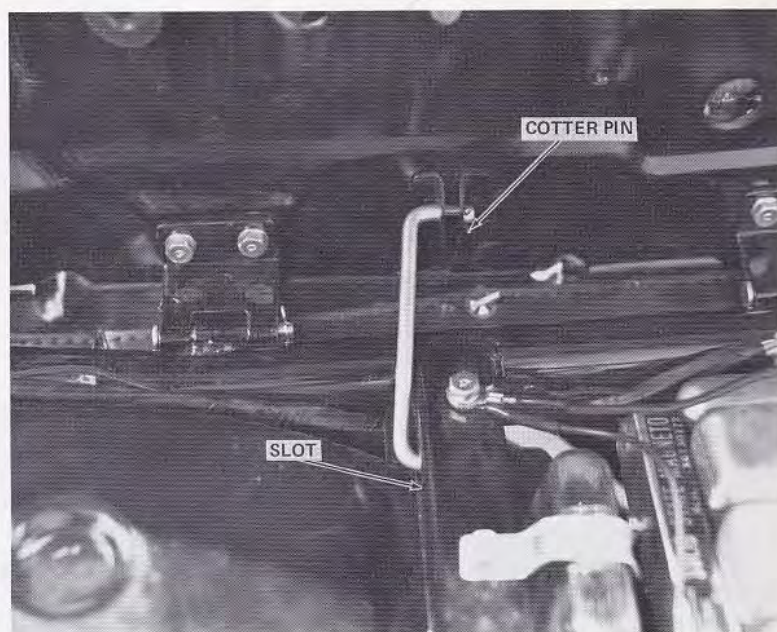
Mount the passenger grab rail by slipping the front of the rail between the flatwashers on the upper shock mounts, and screwing the two mount bolts into the rear mounting lugs from under the seat backrest.



Install the seat assembly with the hinge pins, as shown. Be sure to install the safety clips.



Attach the seat stop rod by slipping the short end with the washer through the slot in the frame crossmember. Attach the top end to the seat with a cotter pin.



Finally, remove the protective coverings from the gas tank and mirror back.



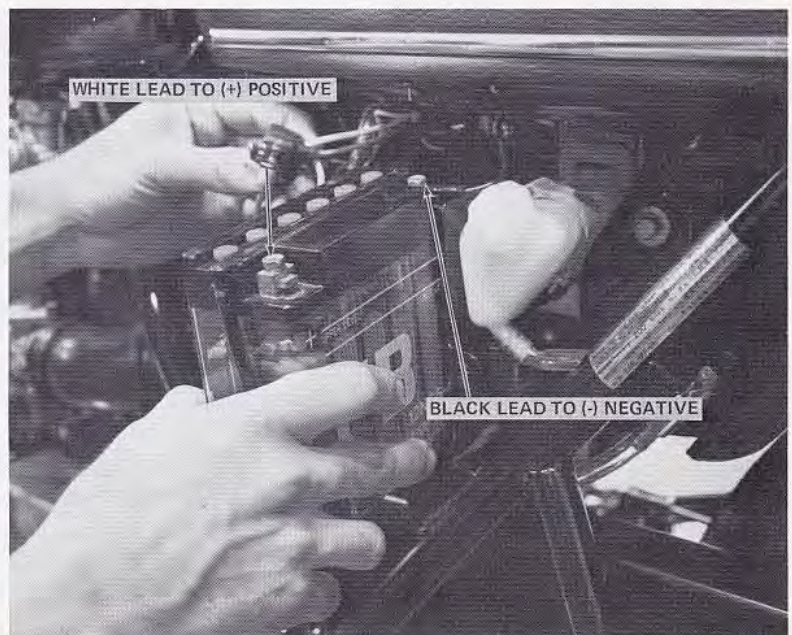
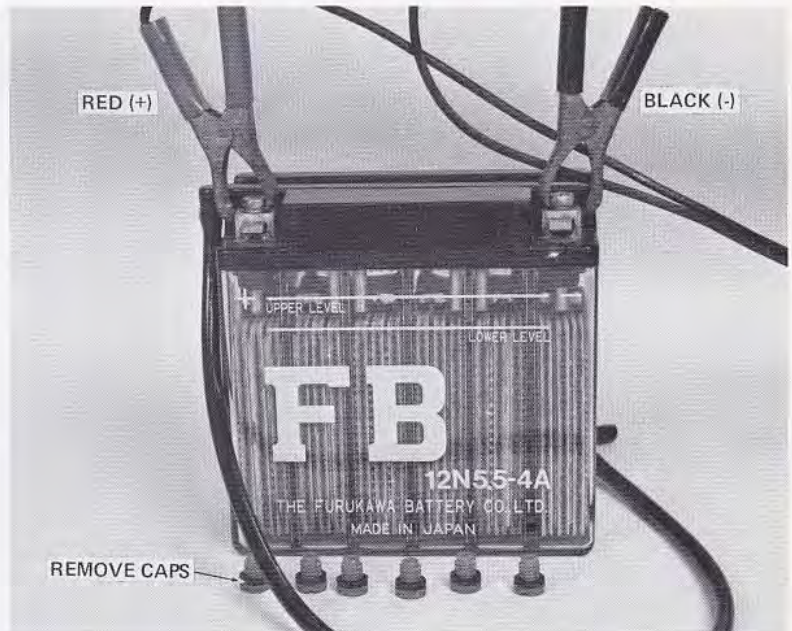
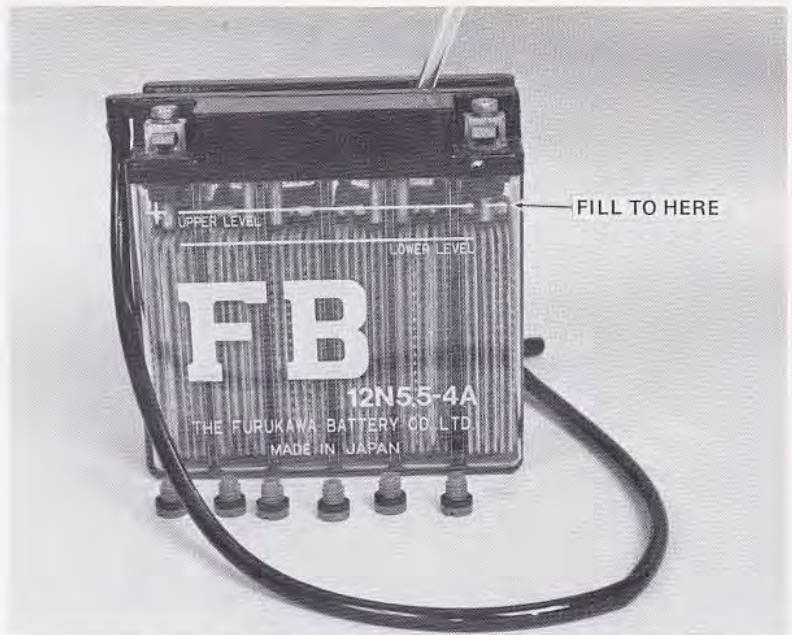
## PREPARATION

### BATTERY SERVICING

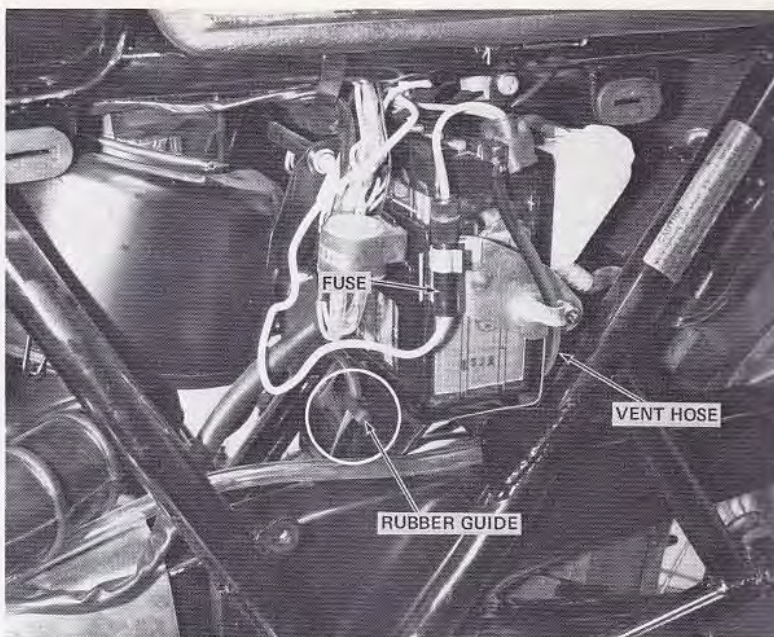
Remove the battery cover and take the battery out of the motorcycle. Be sure that the battery vent hose has been cut or the rubber band removed. Fill the battery to the top level with fresh electrolyte fluid at a temperature of 85°F or less. Let the battery stand for two hours. If the fluid level drops below the upper line, refill the battery with more electrolyte before charging.

To avoid battery damage when charging, remove all of the caps. Connect the battery charger leads (red to +, black to -) to the battery posts. **CAUTION:** Do not charge at a rate greater than 1 amp. Charge for 15 to 20 hours. Discontinue charging if the electrolyte temperature rises to 115°F. If the electrolyte level drops, refill the battery with **distilled water only!**

Wash off any spilled acid with fresh water. Be sure the battery damper rubber is in place to protect the battery. Before sliding the battery into the box, connect the black lead to the negative terminal. Then slide the battery into the box with the vent tube facing out. Connect the white lead to the positive terminal (+).



Secure the battery in place with the bracket, and position the fuse in the clip. Route the vent hose through the guide, behind the battery box, and through the rubber guide on the fender. This will insure that the vent is not pinched or allowed to drain on the chain or other critical points.

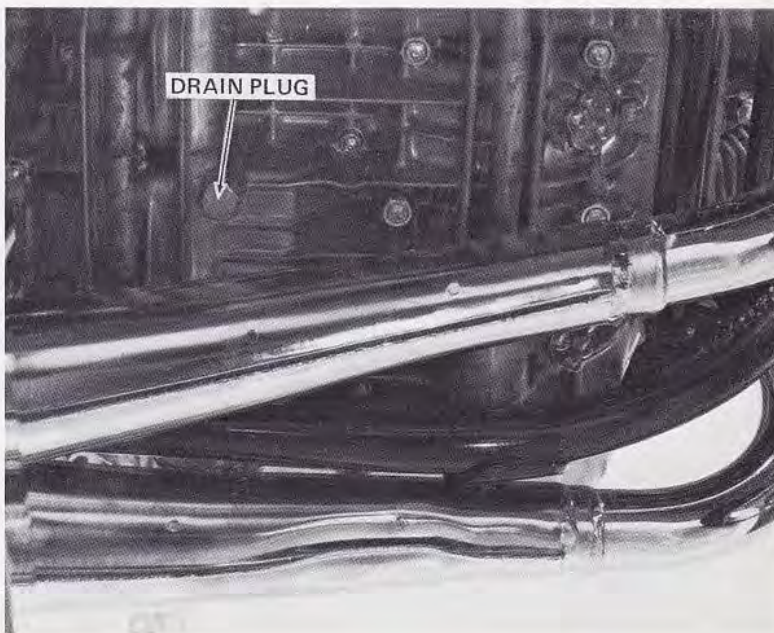


### LUBRICATION

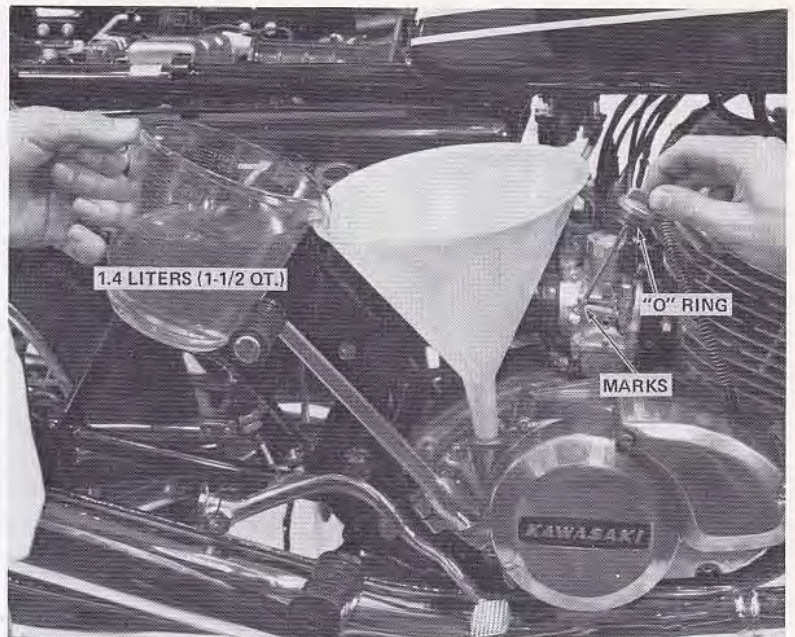
Before replacing the side cover, fill the chain oil tank with 5 oz. of good quality SAE 30 motor oil. Check to see that the hoses are clear and firmly attached to the oiler valve.



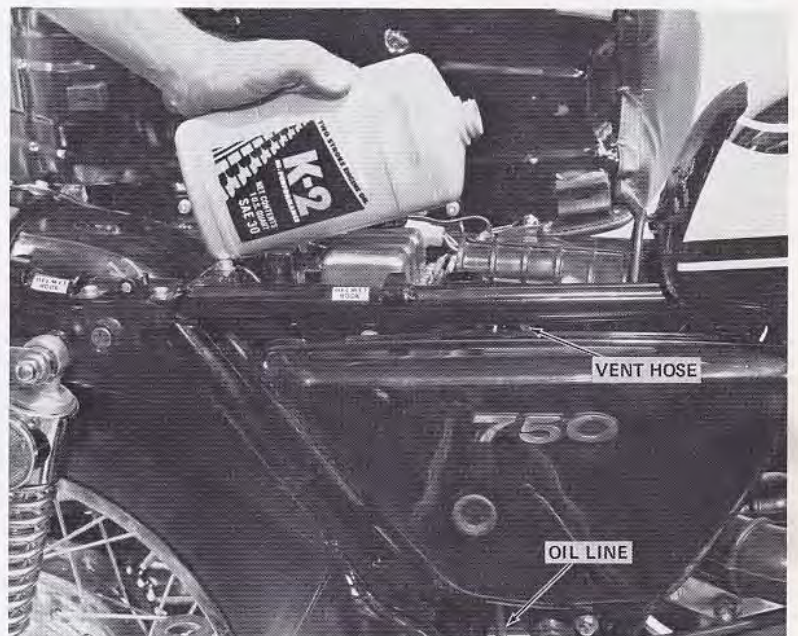
Remove the drain plug and drain the shipping oil from the transmission. Replace the drain plug and gasket, and tighten it securely.



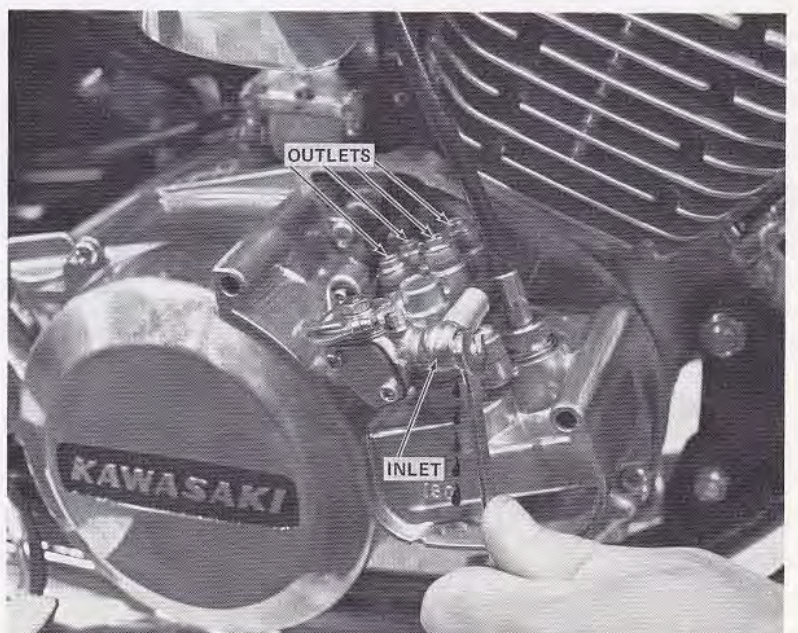
Fill the transmission with 1.4 liters (48 oz.) of SAE 10W-40, 20W-50, or 10W-50 motor oil marked SD or SE. The oil level should be between the two marks on the filler cap dipstick. Be sure the O-ring is in place.



Check the oil line from the oil tank to the pump to make sure it is secure, and check the oil tank vent hose to make sure it is not pinched or blocked, which could result in serious engine damage. Fill the oil tank with a good quality 2-stroke oil, such as Kawasaki K-2.



Remove the oil pump cover. Loosen the oil inlet banjo bolt to bleed the oil inlet line from the oil tank. After two minutes of oil flow, tighten the bolt. **CAUTION:** If the oil flow is slow or stops altogether, check the oil tank filter for clogging and the oil hose for pinching. Check to be sure that the four oil outlet bolts are tight.





## FUEL PETCOCK SERVICE

Remove the fuel cock sediment bowl and screen. Clean out any foreign matter and reassemble the fuel cock.



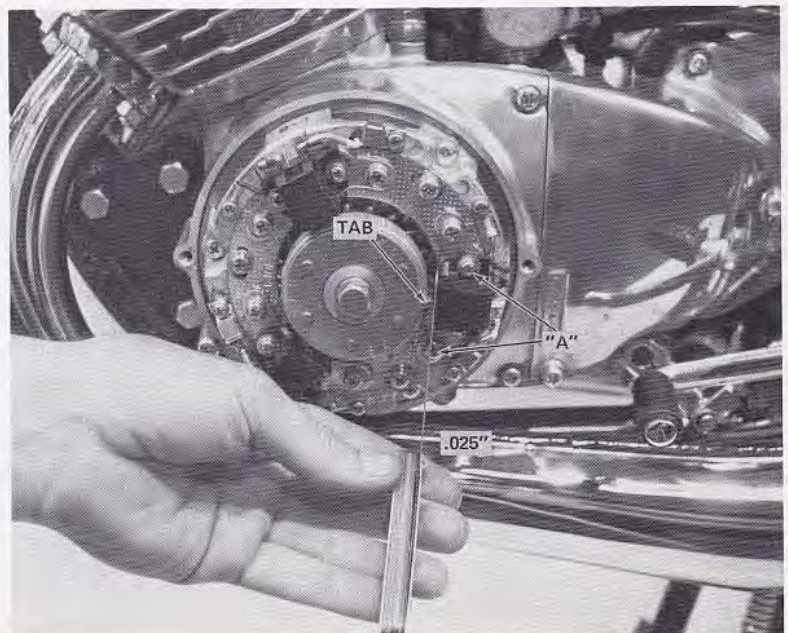
## OIL PUMP BLEEDING

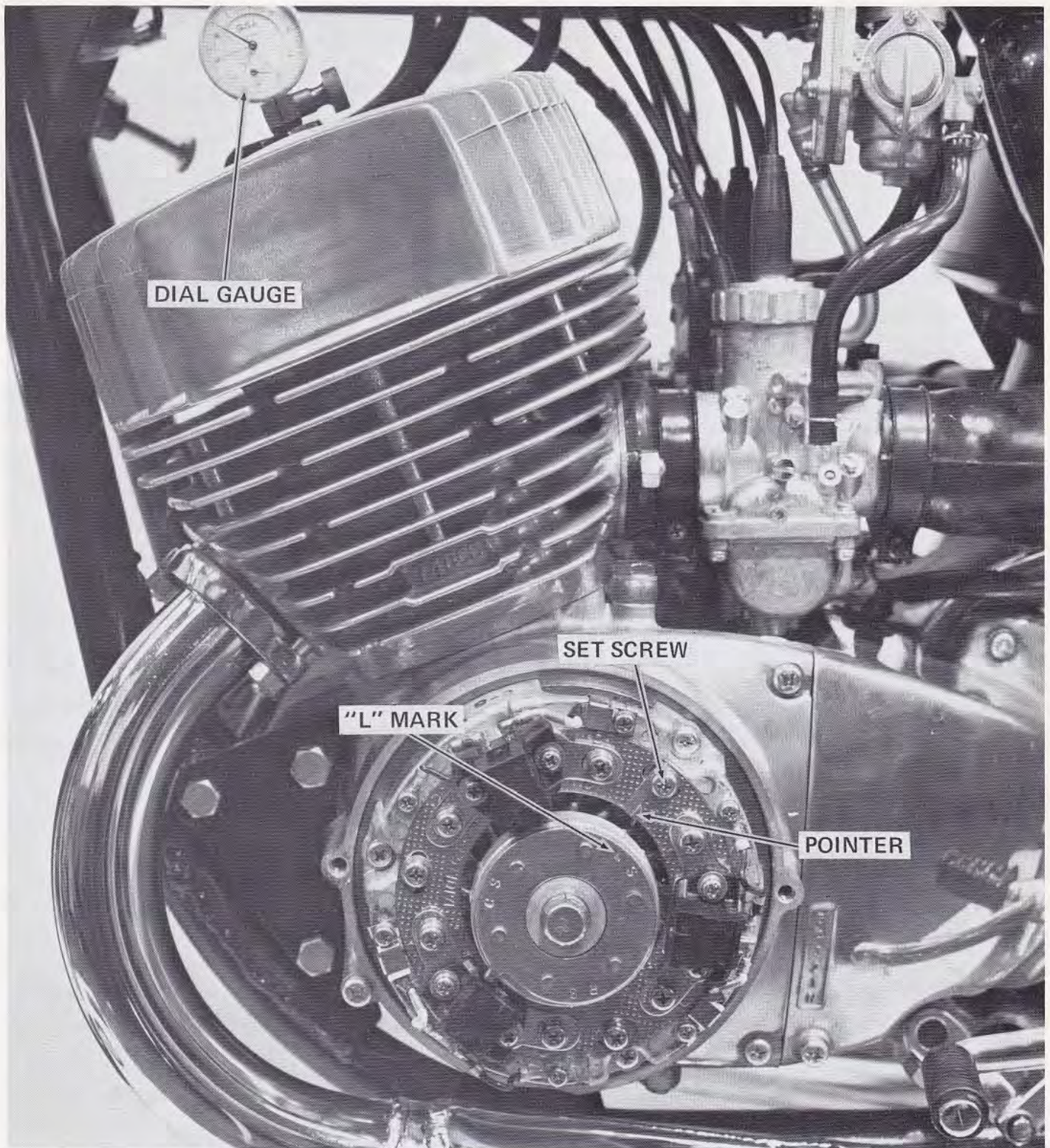
Start the engine and maintain a steady engine speed of 1500 to 2000 rpm. Hold the oil pump control lever in the wide-open position to bleed any air out of the oil pump body and oil pressure lines. When the exhaust starts to smoke heavily, release the lever and stop the engine. **CAUTION:** If the exhaust does not smoke, or if bubbles are present in the oil pressure lines, check for blockage or loose connections.



## IGNITION TIMING

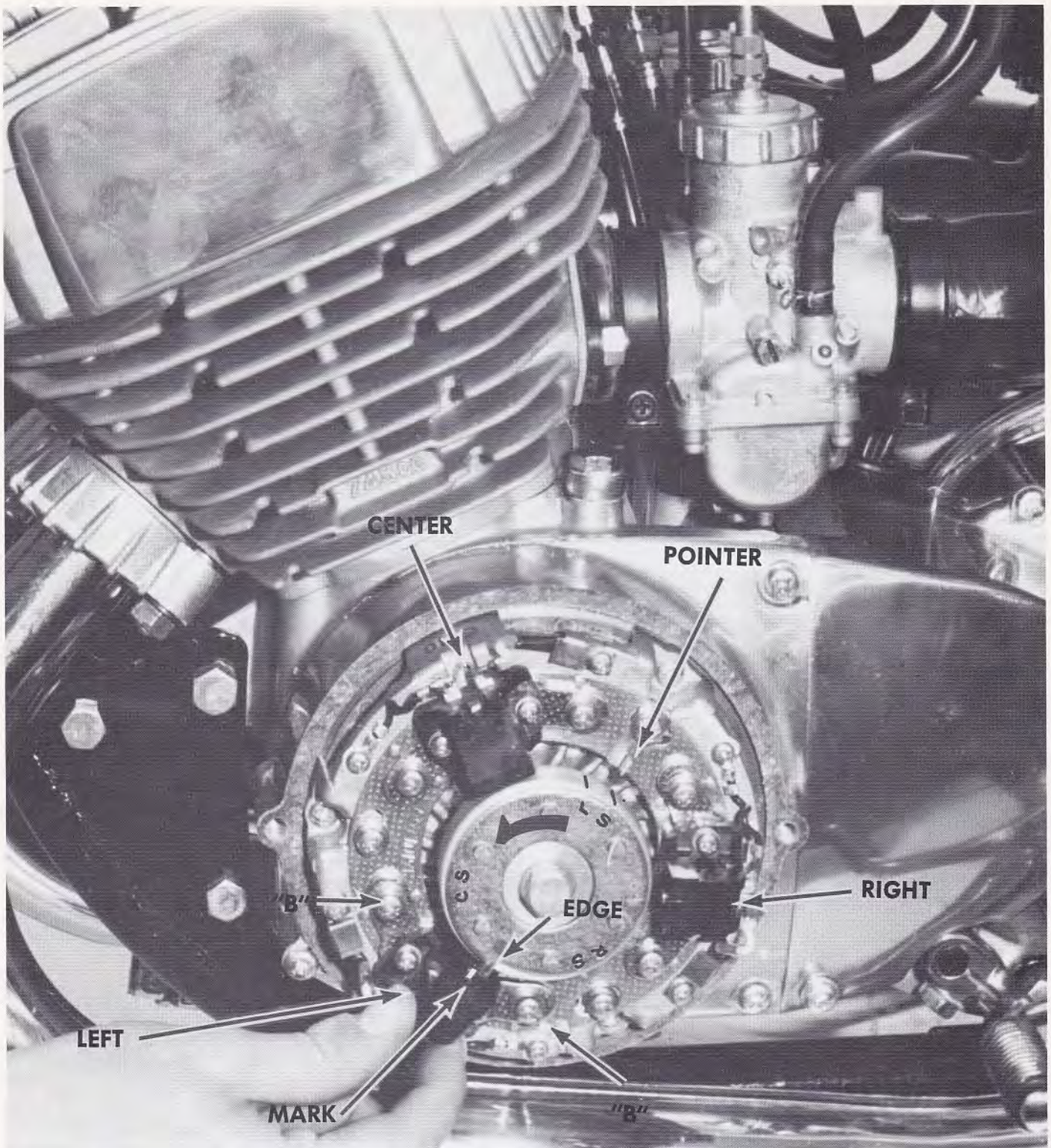
Remove the ignition cover. Turn the engine until the tab on the signal generator rotor is aligned with the magnet in the center of one of the pick-ups. There should be a gap of 0.025 in. between the pick-up and the tab on the rotor. If the gap is incorrect, fully loosen the two screws "A" and adjust the pick-up by hand. Tighten the screws securely and repeat the procedure on the other two pick-ups. **CAUTION:** Do not pry on the pick-ups with a screwdriver or any other tool. Be sure the screws are completely loose before adjusting the pick-ups, or they may break.





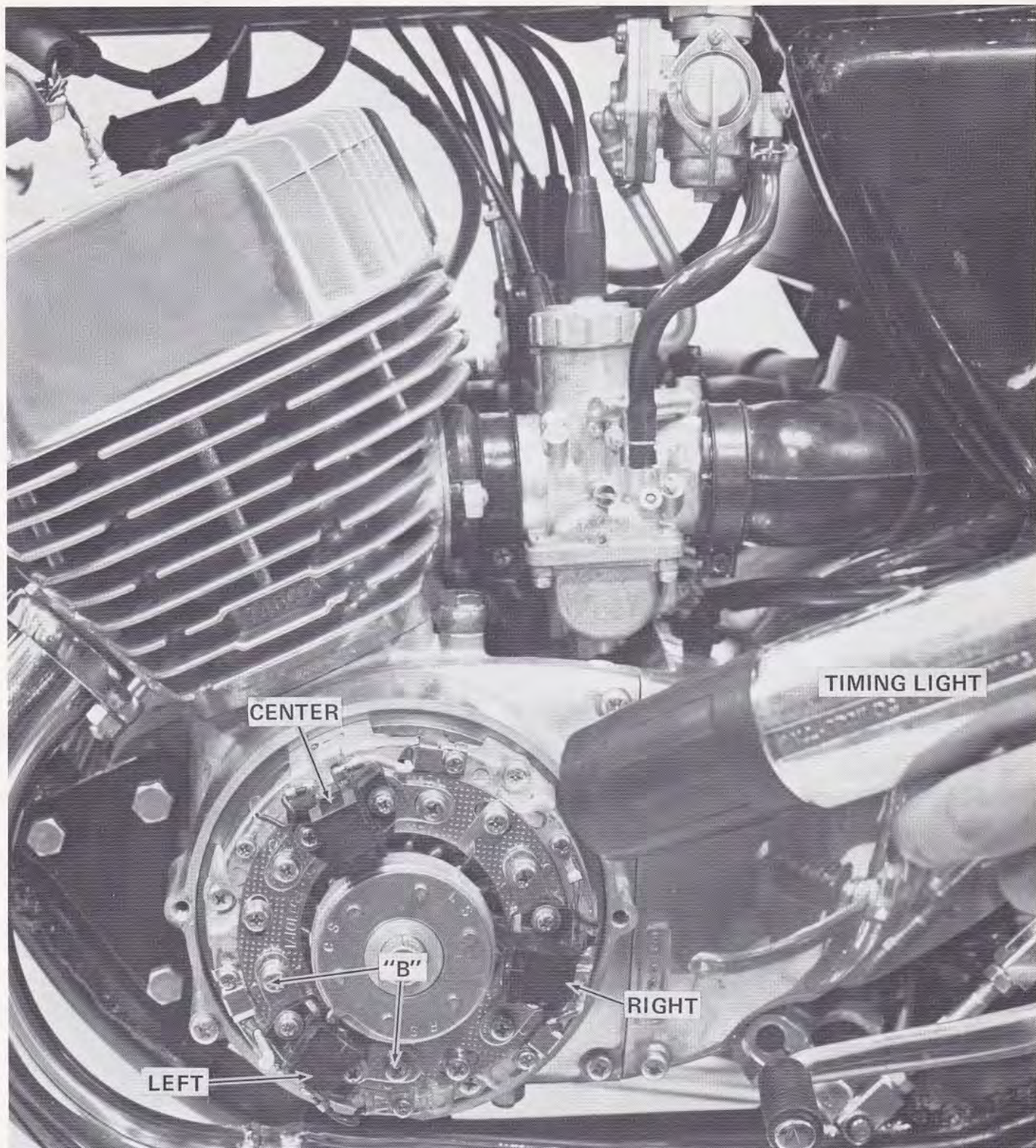
Remove the spark plug and fit a dial gauge to the left cylinder. Turn the crankshaft to top dead center and then rotate it clockwise until the dial gauge shows that the piston is 3.13mm BTDC. The pointer should

now align with the "L" mark on the rotor. If it does not, loosen the set screw and adjust the pointer to the mark. Take out the dial gauge and replace the spark plug.



Turn the crankshaft in the direction shown until the "S" (static) mark nearest the "L" mark lines up with the pointer. The trailing edge of the rotor tab should align with the mark on the pick-up for the left-hand cylinder, as shown. If it does not loosen the two screws "B" and adjust the pick-up accordingly. Tighten the screws securely after adjustment. Turn

the crankshaft until the pointer aligns with the "S" mark nearest the "R" on the rotor. The trailing edge of the rotor tab should align with the mark on the pick-up for the right-hand cylinder. If it does not align, adjust the pick-up. Using the "S" mark nearest the "C" on the rotor, do the same for the center cylinder pick-up.

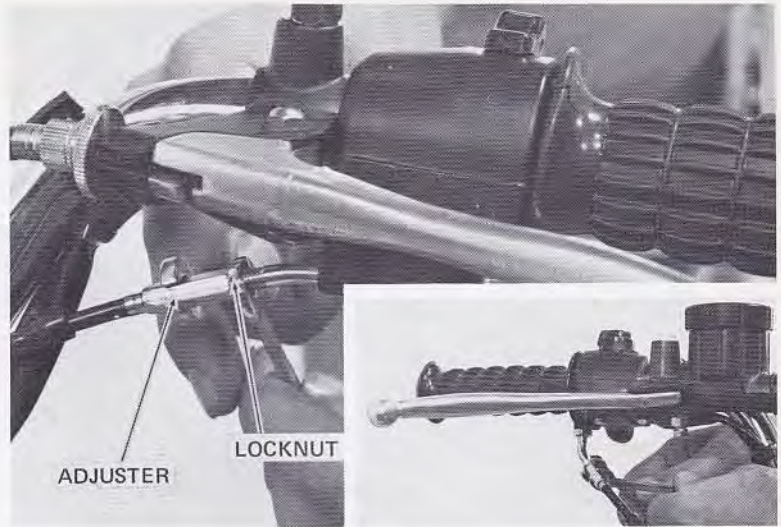


Connect a stroboscopic timing light to the left-hand sparkplug wire. Start the engine and maintain a steady speed of 4000 rpm. Using the timing light, check to see that the pointer aligns with the "L" mark on the rotor. If it does not align, loosen the two

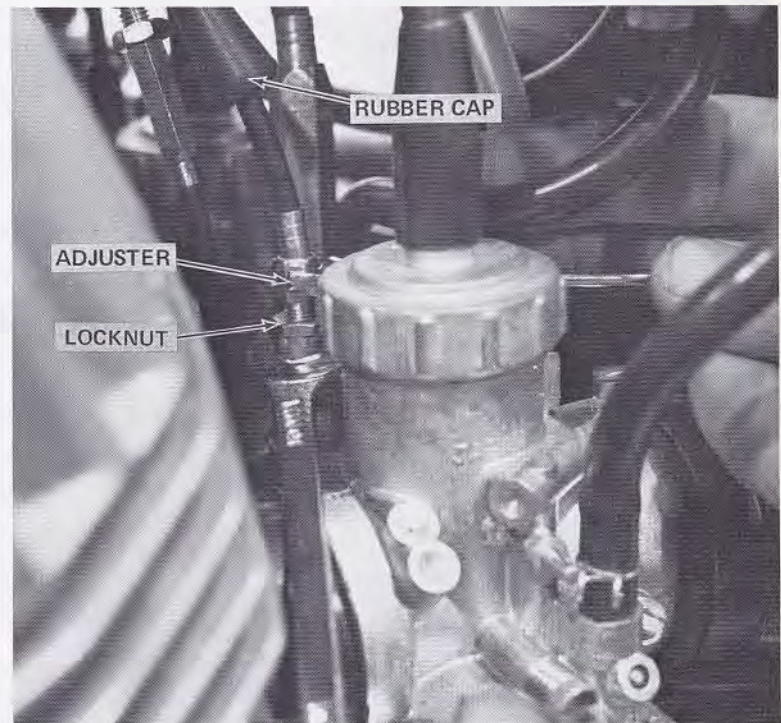
screws "B" and adjust the pick-up. After adjustment, tighten the screws securely. Repeat the procedure for the center and righthand cylinder pick-ups, using the "C" and "R" marks, respectively.

## CARBURETOR ADJUSTMENTS

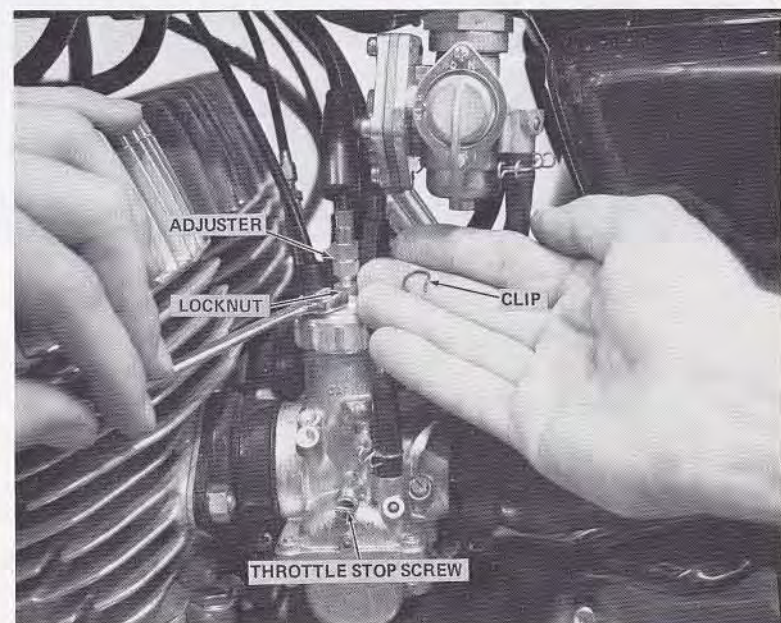
Loosen the locknut and turn the adjuster in until the starter cable has at least 1/4" of slack. Adjust the throttle cable in the same manner.



Tug on the starter cables to check for free play, which should be 1/8" in each cable. **NOTE:** If there is no slack, the starter plunger will be held open slightly, causing rich mixtures from the carburetor. To adjust the cable slack, pull up the rubber cap, loosen the locknut, and turn the adjuster. Tighten the locknut after adjusting.



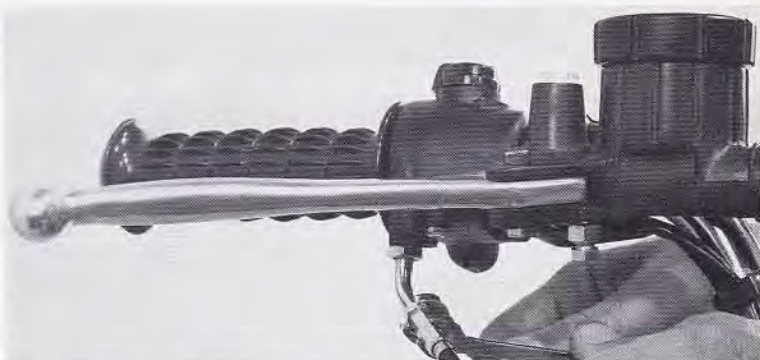
For smooth, reliable performance, the three carburetors must all have the same slide position at any throttle opening. Pull up the rubber cap and remove the circlip from the groove in the adjuster on all three carburetors. Turn the throttle stop screws all the way out, so that they do not hold the throttle slides open. The slides are now all fully closed. Tug on the throttle cables to make sure each cable has the same amount of slack: about 1/16". Correct any tight or loose cable by loosening the locknut and turning the cable adjuster. When all three cables have 1/16" of slack, tighten the locknuts. Replace the circlips and push down the rubber caps. After this operation, the three slides will be parallel at any throttle position from fully closed to wide open.



Turn in each air screw until it bottoms lightly, and back it out 1-3/4 turns. Start the engine and warm it up for a minute or two; then turn the throttle stop screws until a stable idle of 1200 to 1400 rpm is obtained. Hold your hands over the mufflers to see if the exhaust pressure is balanced among the three cylinders. To balance the exhaust, turn the throttle stop screws — back out the screw on a "strong" cylinder; turn in the screw on a "weak" cylinder. Check the tightness of the carburetor and air inlet clamps and the inlet flange nuts.

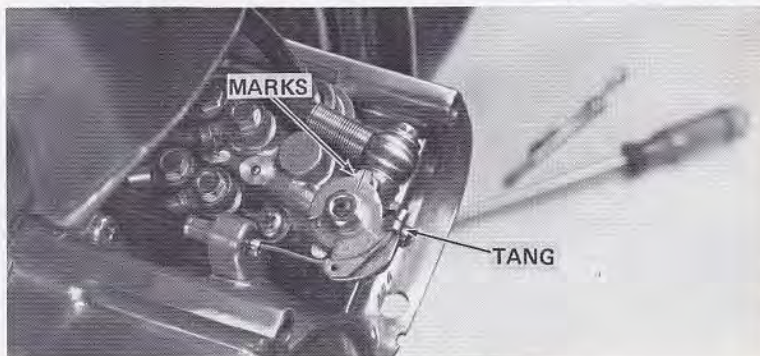


Finally, lengthen the cable adjuster at the twistgrip so that there is approximately 1/16"-1/8" play in the throttle. Do the same to the starter cable.



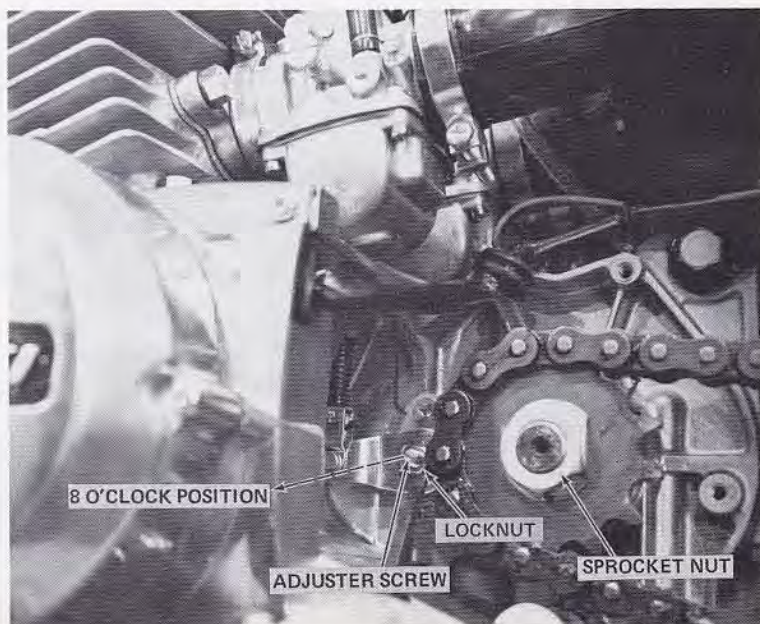
### OIL PUMP ADJUSTMENT

Only after adjusting the carburetors, inspect the oil pump adjustment. Close the twistgrip completely, and see that the mark on the oil pump lever aligns with the mark on the oil pump body just as the throttle valves start to open. If it does not align, loosen the locknut on the oil pump cable under the fuel tank and turn the adjuster. After adjusting, tighten the locknut securely. Check to be sure that the lever tang is bent over to retain the cable nipple.

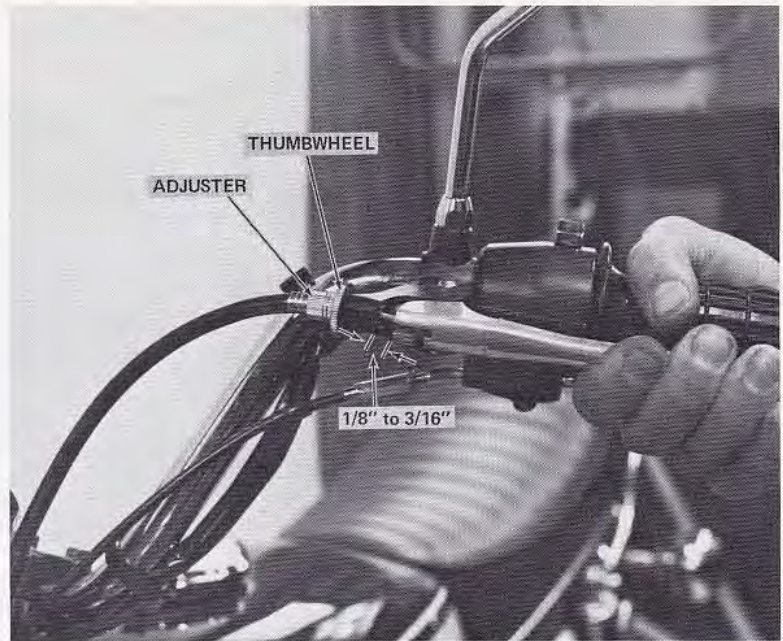


### CLUTCH ADJUSTMENT

Remove the sprocket cover and check the position of the clutch release lever, which should be at approximately 8 o'clock. Correct the lever position by turning the clutch cable adjuster under the fuel tank. After adjusting, be sure to tighten the locknut securely. Loosen the locknut on the release screw and turn the screw clockwise until you start to feel clutch spring tension. Hold the screw in this position while tightening the locknut. Check the tightness of the sprocket nut, making sure the washer is bent, and replace the sprocket cover.



Turn the clutch cable adjuster on the handlebar to obtain 1/8"-3/16" gap when you just start to feel clutch spring tension, and then tighten the thumbwheel.

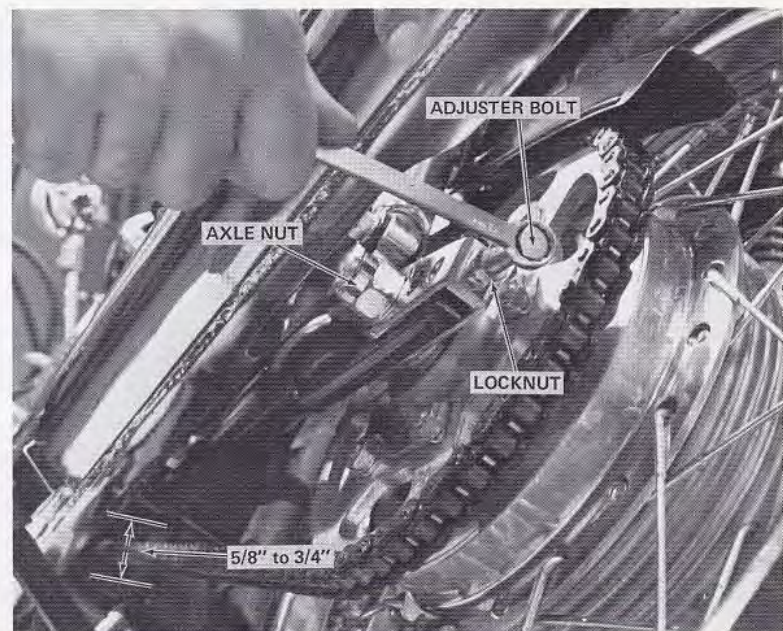


Check the fluid in the brake master cylinder reservoir, with the reservoir held as nearly level as possible. If the fluid is below the line on the inside wall of the reservoir, fill it with brake fluid from a sealed container. Use only fluid marked DOT3. Check to be sure that the master cylinder banjo bolt is tightened to 20 lb.-ft. of torque. Also check to be sure both banjo bolts on the three-way fitting are tightened to 20 lb.-ft. of torque. The brakelight switch should be tightened to 13 lb.-ft. of torque.



## CHAIN ADJUSTMENT

Remove the cotter pin and loosen the rear axle nut. Loosen the chain adjuster locknuts on either side of the swing arm. Push the rear wheel forward in the swing arm while turning the adjuster bolt until the drive chain has 5/8" to 3/4" of slack on the lower run of chain. Tighten the locknuts and the axle nut after adjustment. **CAUTION:** Be sure to replace the cotter pin. **NOTE:** To insure proper wheel and sprocket alignment, make sure the marks on the chain adjusters are positioned at equal divisions on the swing arm tabs. Adjust the rear shock absorbers to the "softest" position.

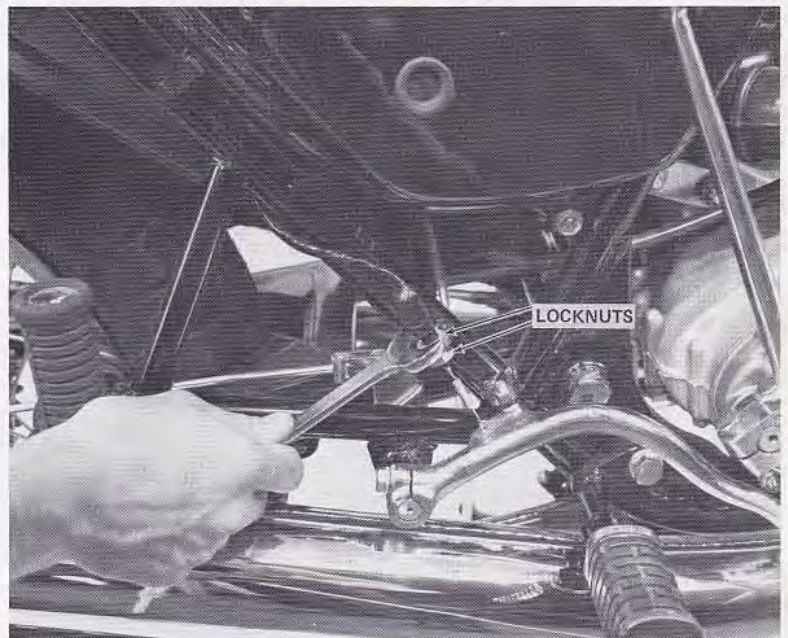


## REAR BRAKE ADJUSTMENT

The rear brake pedal should have about 1" of play before the rear brake begins to drag. If it does not, turn the adjuster nut accordingly.

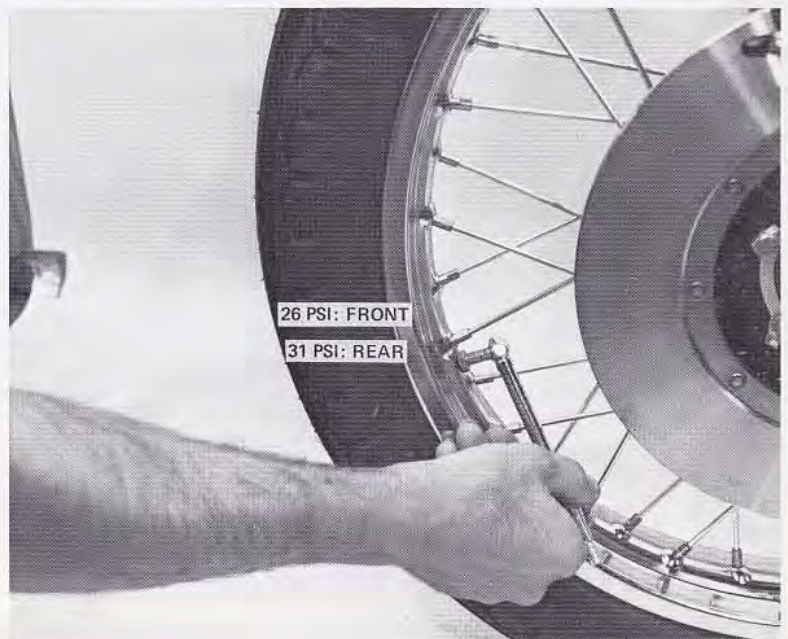


Turn on the main switch. The brake lamp should light when the brake pedal is depressed 1/2" to 3/4". If it does not, loosen the adjuster nuts and adjust the switch as required. Test the front brake lamp switch, the head light, high and low beam, the taillight, the turn signals, and the horn.

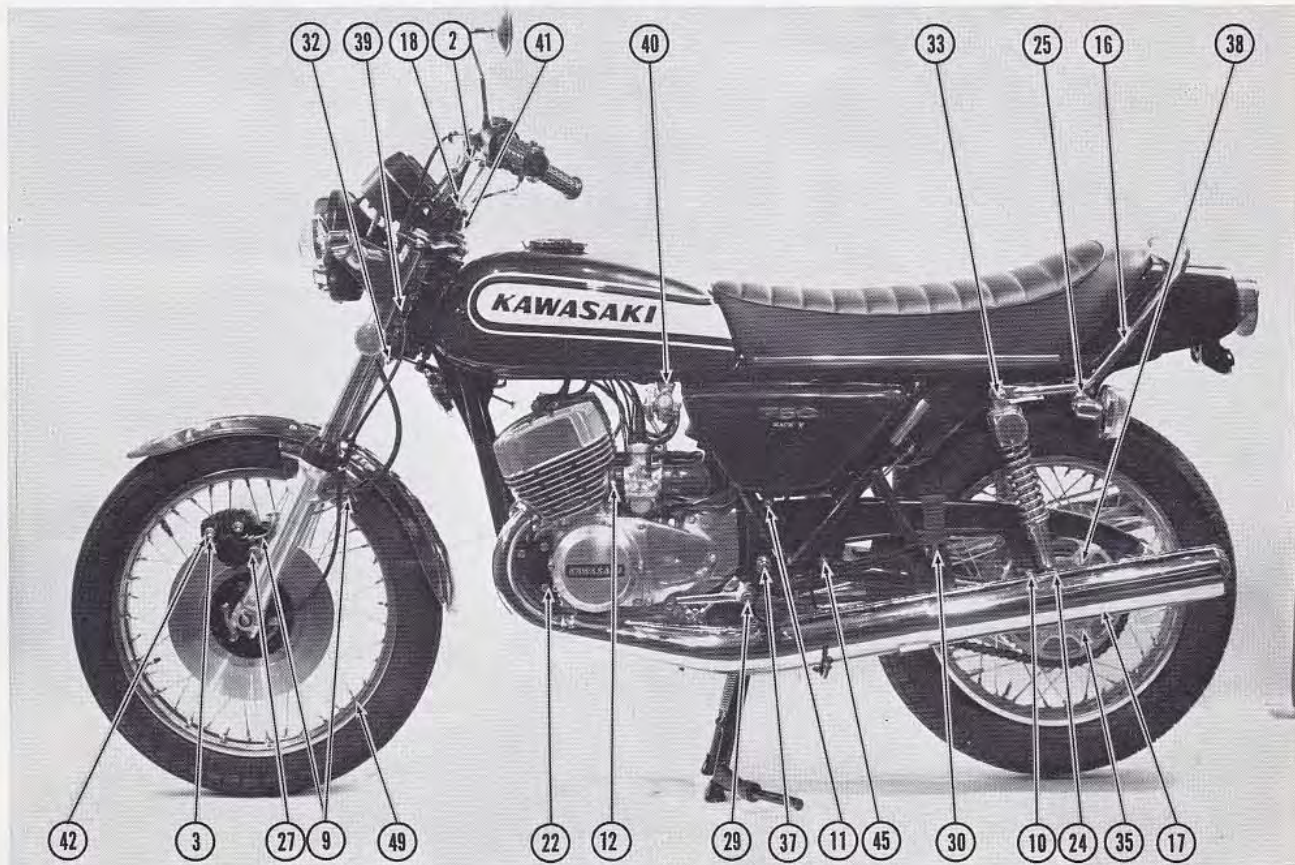
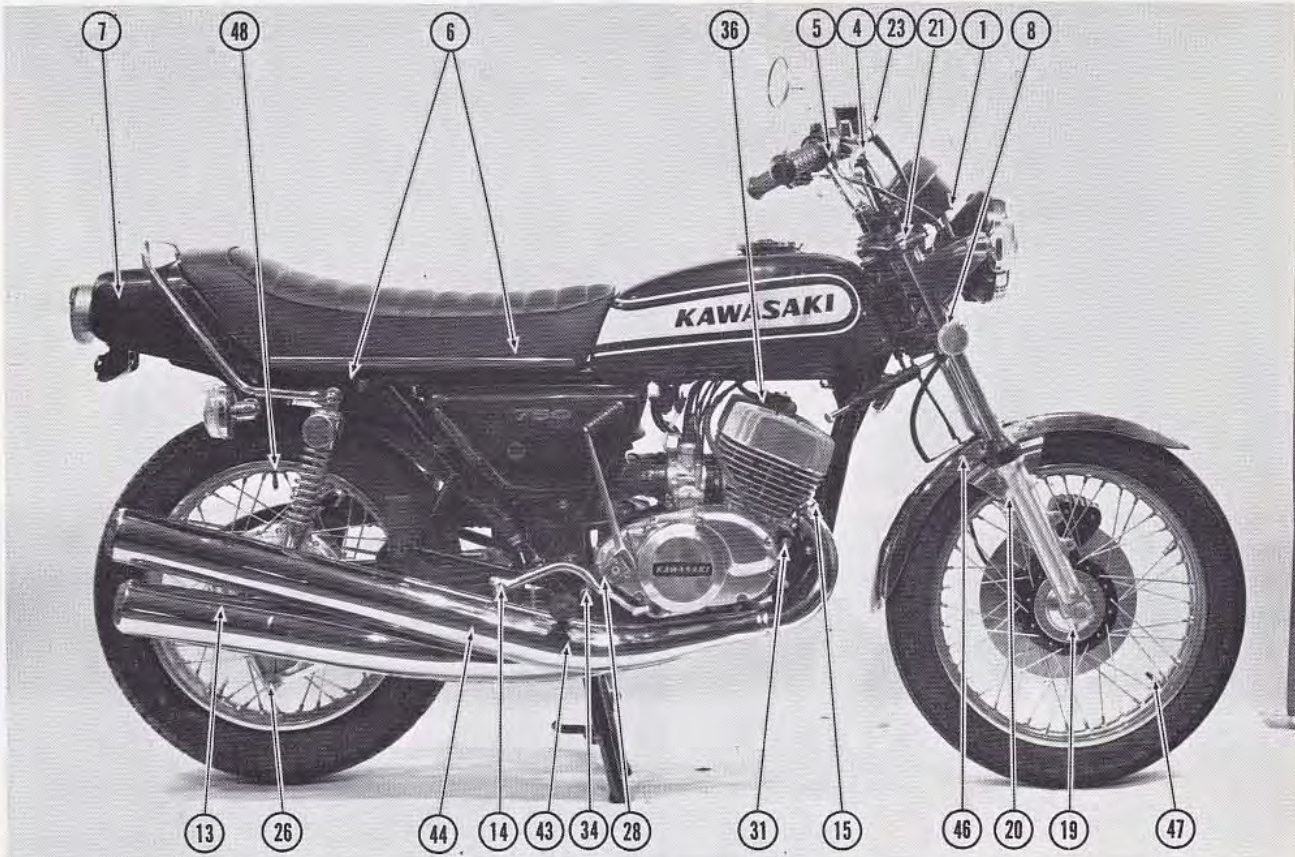


## TIRE PRESSURES

To prevent flat spotting, the tires are over-inflated before crating. Reduce the pressure to 26 psi in front, and 31 psi in rear.







ITEM	DESCRIPTION	TOOL SIZE	REMARKS
1.	Instrument nuts (4)	8mm	
2.	Clutch lever pivot nut	8mm	
3.	Brake bleeder valve	10mm	6.5 lb.-ft.
4.	Brake lever pivot nut	10mm	
5.	Lever bracket clamp bolts (3)	10mm	4.5 lb.-ft.
6.	Seat hinge bolts (4)	10mm	
7.	Tail lamp bracket bolts (4)	10mm	
8.	Three-way fitting bolts (2)	10mm	4 lb.-ft.
9.	Hydraulic pipe fittings (2)	10mm	12.5 lb.-ft.
10.	Chain guard bolt	10mm	
11.	Side cover bolts (2)	10mm	
12.	Carburetor mount flange nuts (6)	12mm	
13.	Rear brake actuating lever bolt	13mm	14 lb.-ft.
14.	Brake pedal clamp bolt	13mm	14 lb.-ft.
15.	Exhaust flange nuts (6)	13mm	
16.	Back rest bolts (4)	13mm	
17.	Chain adjuster locknuts (2)	13mm	
18.	Handlebar clamp bolts (4)	13mm	15 lb.-ft.
19.	Front axle clamp nuts (4)	13mm	
20.	Front fender mount bolts (4)	13mm	
21.	Top triple clamp nuts (3)	13mm	
22.	Engine bracket nuts (2)	13mm	
23.	Brake hose banjo bolts (3)	14mm	20 lb.-ft.
24.	Lower shock absorber nuts (2)	14mm	
25.	Rear turn signal mount nuts (2)	14mm	
26.	Rear brake torque link nut	14mm	w/safety clip
27.	Caliper bracket bolts (2)	14mm	20 lb.-ft.
28.	Kick start lever bolt	14mm	
29.	Shift lever bolt	17mm	
30.	Passenger peg nuts (2)	17mm	
31.	Engine mount nuts (4)	17mm	
32.	Lower triple clamp bolts (2)	17mm	
33.	Upper shock absorber nuts (2)	17mm	
34.	Foot rest bolts (2)	17mm	
35.	Sprocket bolts (6)	17mm	w/lock plates
36.	Cylinder head nuts (12)	19mm	30 lb.-ft.
37.	Swing arm pivot nut	24mm	150 lb.-ft.
38.	Rear axle nut	27mm	85 lb.-ft. w/cotter pin
39.	Hydraulic brake light switch	27mm	13 lb.-ft.
40.	Fuel valve nut	30mm	
41.	Steering stem nut	42mm	Spanner type. Do not over-tighten. No excessive play. 24 lb.-ft.
42.	Caliper bolts	10mm Allen head	
43.	Center stand pivot joints	washer & cotter pin	
44.	Rear brake torque link	washer & safety clip	
45.	Chain guard screw	#2 phillips	
46.	Front fender screws (4)	#2 phillips	w/self-locking nut
47.	Tire pressure front	26 psi	
48.	Tire pressure rear	31 psi	
49.	Spoke nipples		Check & tighten

# SPECIFICATIONS

## CARBURETOR

Manufacture & Type	Mikuni VM30SC/Primary
ID Mark	H2-5
Float Level	24mm ± 1mm
Fuel Level	30mm ± 1mm
Main Jet Size & Type	#102.5R
Needle Jet/Primary Choke	#0-6/8mm
Jet Needle & Clip Position	#5EJ15-4th
Pilot Jet	#40
Throttle Valve Cutaway	#2.5
Air Screw (Turns Out)	1-3/4

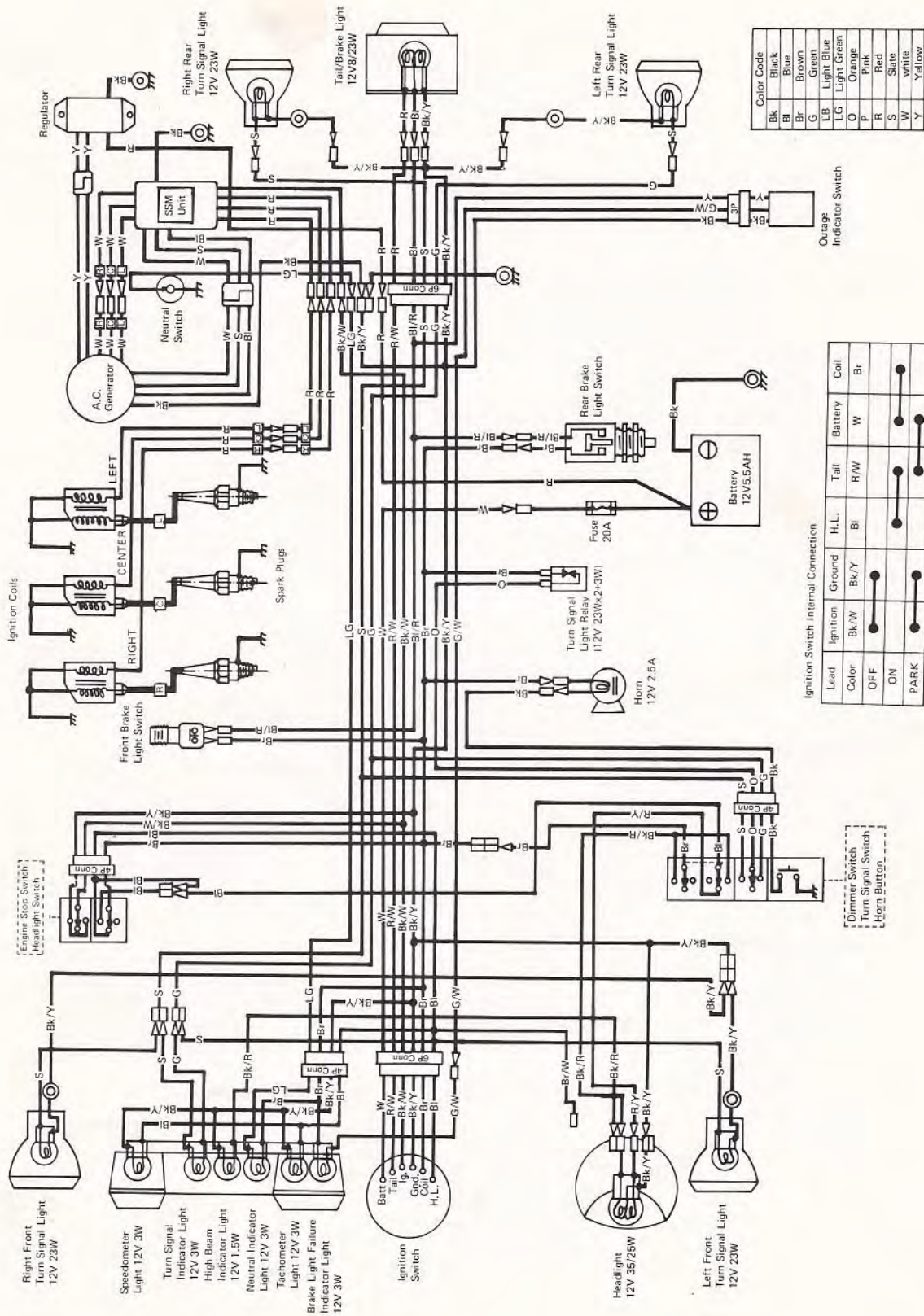
## IGNITION

Signal Generator Air Gap	0.025 in.
Ignition Timing – Initial Setting	3.13mm BTDC
Ignition Timing @ 4000 rpm	23°
Spark Plug Type	NGK B-9HS-10
Spark Plug Gap	0.040 in.

## LUBRICANTS

Front Fork Oil Type	SAE 10W
Front Fork Oil Level	448mm from top
Front Fork Oil Quantity (Each Leg)	160cc
Transmission Oil Type	SAE 10W-40, 20W-50, 10W-50, marked SD or SE
Transmission Oil Quantity	1.5 qt., 1.4 Liter, 48 fl. oz.
Chain Oiler Type	SAE 30

# WIRING DIAGRAM



(147-2)

